

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A process for preparing a devitalized soft tissue graft for implantation into a mammalian system, comprising:

extracting a soft tissue sample with an extracting solution comprising a non-denaturing anionic detergent one or more of N-lauroyl sarcosinate, deoxycholic acid, taurocholic acid, glycocholic acid, and cholic acid, to produce an extracted tissue comprising cell lysis remnants;

washing at least some cell lysis remnants from said extracted tissue with water ~~which is passed~~ passing through a bed of hydrophobic adsorbent resin and anion exchange resin to remove the cell lysis remnants ~~in the wash water~~ and,

subsequently inducing a pressure mediated flow of storage solution comprising ~~at least one of a decontaminating agent~~ and a water replacement agent, through said washed extracted tissue, to produce said devitalized soft tissue graft; and

storing said washed extracted tissue in said storage solution;

wherein said devitalized soft tissue graft retains at least one of non-viable cells or cellular elements capable of inducing graft repopulation with an appropriate cell type.

Claim 2 (currently amended): A process for preparing a devitalized soft tissue graft for implantation into a mammalian system, comprising:

inducing a pressure mediated flow of an extracting solution comprising a non-denaturing anionic detergent one or more of N-lauroyl sarcosinate, deoxycholic acid, taurocholic acid, glycocholic acid, and cholic acid, through soft tissue, to produce an extracted tissue comprising cell lysis remnants; and

washing at least some cell lysis remnants from said extracted tissue comprising inducing a pressure mediated flow of a water solution ~~which is passed~~ passing through a bed of hydrophobic adsorbent resin and anion exchange resin to remove the cell lysis remnants ~~in the wash water solution~~ to produce a washed extracted tissue;

subsequently inducing a pressure mediated flow of storage solution comprising ~~at least~~

~~one of a decontaminating agent and a water replacement agent, through said washed extracted tissue, to produce said devitalized soft tissue graft; and~~

storing said devitalized soft tissue graft in said storage solution; wherein said devitalized soft tissue graft retains at least one of non-viable cells or cellular elements capable of inducing graft repopulation with an appropriate cell type.

Claim 3 (original): The process of any one of claims 1 or 2, wherein said process does not comprise a denaturing detergent.

Claim 4 (currently amended): The process of any one of claims 1 or 2, further comprising, prior to washing, removing ~~of at least~~ said one non-denaturing anionic detergent ~~through use of a hydrophobic resin or a hydrophilic resin.~~

Claim 5 (original): The process of any one of claims 1 or 2, wherein said extracting solution comprises one or more endonucleases.

Claim 6 (original): The process of claim 5, wherein said one or more endonucleases comprise one or more broad-spectrum endonucleases capable of degrading both deoxyribonucleic acids and ribonucleic acids.

Claim 7 (original): The process of claim 6, wherein said one or more broad-spectrum endonucleases comprise one or more recombinant endonucleases.

Claim 8 (canceled)

Claim 9 (original): The process of claim 5, wherein said one or more endonucleases are present in said extracting solution at a concentration sufficient to degrade nucleic acids present in said tissue sample.

Claim 10 (original): The process of claim 9, wherein said one or more endonucleases are

present in said extracting solution at a concentration of from about 20 U/ml tissue to about 400 U/ml tissue.

Claim 11 (original): The process of claim 9, wherein said one or more endonucleases are present in said extracting solution at a concentration of about 375 U/ml tissue.

Claim 12 (original): The process of any one of claims 1 or 2, wherein said extracting solution is a hypotonic buffered solution at an alkaline pH.

Claim 13 (original): The process of any one of claims 1 or 2, wherein said extracting solution is recirculated through said soft tissue graft.

Claim 14 (previously presented): The process of any one of claims 1 or 2, wherein said storage solution is recirculated through said soft tissue graft.

Claim 15 (previously presented): The process of claim 2, wherein said water solution is recirculated through said extracted tissue.

Claim 16 (previously presented): The process of claim 2, wherein said water is USP grade, sterile, endotoxin-free, water.

Claims 17 and 18 (canceled)

Claim 19 (currently amended): The process of any one of claims 1 or 2 claim 69, wherein said one or more decontaminating agents is selected from the group consisting of ~~an~~ alcohol, chlorine dioxide, polyethyleneimine, ~~ethanol, isopropanol, methanol,~~ glycerol, methylparaben, ~~and an antibiotic, antimicrobial agent, and a combination thereof.~~

Claim 20 (currently amended): The process of claim 19, wherein said decontaminating agents are is non-reactive towards said one or more non-denaturing anionic detergents.

Claim 21 (currently amended): The process of any one of claims 1 or 2, wherein said ~~one or more~~ water replacement agents ~~are~~ is selected from the group consisting of polyol family, monoglycerides, monoolein, monolinolein, various short and long chain free fatty acids and their corresponding monoacylglycerol esters, glycerol, adonitol, sorbitol, ribitol, galactitol, D-galactose, 1,3 dihydroxypropanol, ethylene glycol, triethylene glycol, propylene glycol, glucose, sucrose, mannitol, xylitol, meso-erythritol, adipic acid, proline, hydroxyproline and a combination thereof ~~or similar water soluble small molecular weight that can be expected to replace water in the base matrix structure of soft tissue and provide the hydrating functions of water in the tissue.~~

Claim 22 (original): The process of any one of claims 1 or 2, wherein said storage solution comprises ultrapure, endotoxin-free, water or a water replacement agent.

Claim 23 (original): The process of claim 19, wherein said chlorine dioxide or said methylparaben are present at a concentration in the range of from 0.001% to 0.1% (v:v).

Claim 24 (currently amended): The process of ~~any one of claims 1 or 2~~ claim 69, wherein said ~~one or more~~ decontaminating agents is selected from the group consisting of ethanol, isopropanol, methanol, glycerol, adonitol, sorbitol, ribitol, galactitol, D-galactose, 1,3 dihydroxypropanol, ethylene glycol, triethylene glycol, propylene glycol, glucose, sucrose, mannitol, xylitol, meso-erythritol, adipic acid, proline, and hydroxyproline, and a combination thereof.

Claim 25 (currently amended): The process of claim 24, wherein said ~~one or more~~ decontaminating agents ~~are~~ is present at a concentration in the range of from 20% to 90% (v:v).

Claim 26 (original): The process of any one of claims 1 or 2, wherein said extracting solution has an alkaline pH.

Claim 27 (original): The process of claim 26, wherein said extracting solution further comprises one or more organic or inorganic buffers, wherein an alkaline pH is maintained, and an osmolality of the extracting solution which is hypotonic to the cells in said soft tissue is maintained.

Claim 28 (canceled):

Claim 29 (currently amended): The process of claim 28 68, wherein N-lauroyl sarcosinate, deoxycholic acid, taurocholic acid, glycocholic acid, or cholic acid is present in said extracting solution at a concentration of from about 0.16 mM to about 64 mM.

Claim 30 (currently amended): The process of claim 28 68, wherein N-lauroyl sarcosinate, deoxycholic acid, taurocholic acid, glycocholic acid, or cholic acid is present in said extracting solution at a concentration of from about 1.6 mM to about 64 mM.

Claim 31 (currently amended): The process of claim 28 68, wherein N-lauroyl sarcosinate, deoxycholic acid, taurocholic acid, glycocholic acid, or cholic acid is present in said extracting solution at a concentration of from about 16 mM to about 64 mM.

Claim 32 (original): The process of any one of claims 1 or 2, wherein said step of extracting is carried out for a period of time of from about 6 hours to about 40 hours.

Claim 33 (original): The process of any one of claims 1 or 2, wherein said step of extracting is carried out for a period of time of about 12 hours to about 24 hours.

Claim 34 (currently amended): The process of any one of claims 1 or 2, wherein said extracting solution further comprises ~~one or more~~ a decontaminating agents.

Claim 35 (original): The process of claim 2, wherein one or more of said inducing and washing are carried out at a flow rate sufficient to carry away solutes dissolved in said extracting

solution.

Claim 36 (original): The process of claim 35, wherein said flow rate is from about 2 mls/minute to about 500 mls/minute.

Claim 37 (original): The process of claim 35, wherein said flow rate is from about 50 mls/minute to about 350 mls/minute.

Claim 38 (original): The process of claim 35, wherein said flow rate is from about 150 mls/minute to about 250 mls/minute.

Claim 39 (original): The process of claim 1, wherein said step of extracting is carried out for a time period of from about 6 hours to about 40 hours.

Claim 40 (original): The process of claim 2, wherein said step of inducing is carried out for a time period of from about 12 hours to about 40 hours.

Claim 41 (original): The process of claim 39, wherein said time period is from about 16 to about 24 hours.

Claim 42 (original): The process of claim 40, wherein said time period is from about 16 to about 24 hours.

Claim 43 (original): The process of claim 1, wherein said step of extracting is carried out at a temperature of from about 4°C to about 42°C.

Claim 44 (original): The process of claim 2, wherein said step of inducing is carried out at a temperature of from about 4°C to about 42°C.

Claim 45 (original): The process of claim 43, wherein said temperature is from about

15°C to about 27°C.

Claim 46 (original): The process of claim 44, wherein said temperature is from about 15°C to about 27°C.

Claim 47-67 (canceled).

Claim 68 (new) The process of any one of claims 1 or 2, wherein the non-denaturing anionic detergent is N-lauroyl sarcosinate, deoxycholic acid, taurocholic acid, glycocholic acid, cholic acid, or a combination thereof.

Claim 69 (new) The process of any one of claims 1 or 2, wherein the storage solution further comprises a decontaminating agent.

Claim 70 (new): The process of claim 34, wherein said decontaminating agent is selected from the group consisting of alcohol, chlorine dioxide, polyethyleneimine, glycerol, methylparaben, antibiotic, antimicrobial agent, and a combination thereof.

Claim 71 (new): The process of claim 34, wherein said decontaminating agents is selected from the group consisting of ethanol, isopropanol, methanol, glycerol, adonitol, sorbitol, ribitol, galactitol, D-galactose, 1,3 dihydroxypropanol, ethylene glycol, triethylene glycol, propylene glycol, glucose, sucrose, mannitol, xylitol, meso-erythritol, adipic acid, proline, hydroxyproline, and a combination thereof.